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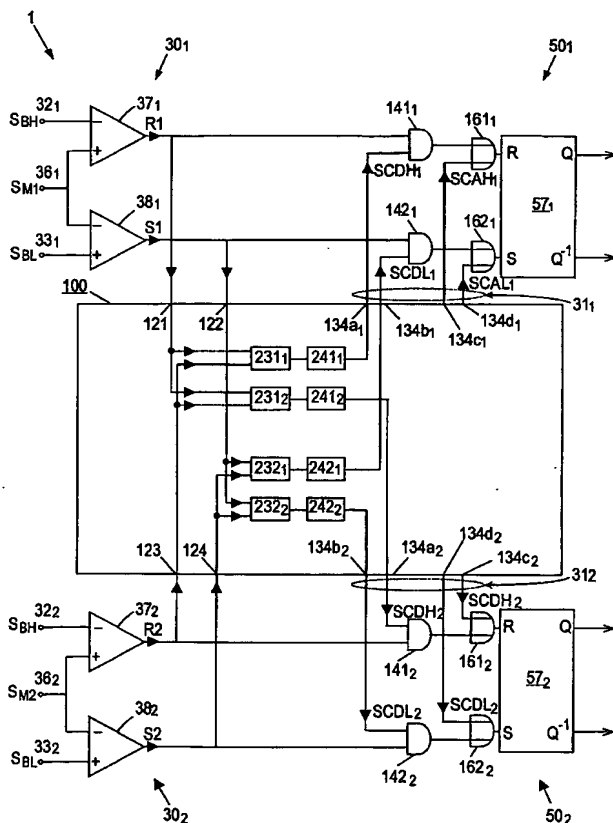
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(54) Title: SWITCHED MODE POWER SUPPLY



(57) Abstract: A switched mode power supply assembly (1) is described, comprising at least two switched mode power supply units (10<sub>i</sub>) coupled to each other in parallel; each power supply unit (10<sub>i</sub>) having an output stage (50<sub>i</sub>, 60<sub>i</sub>) capable of selectively operating in a first mode wherein its output signal (I<sub>OUT,i</sub>) is increasing and operating in a second mode wherein its output signal (I<sub>OUT,i</sub>) is decreasing; a control device (100) receiving mode switch control signals from all power supply units (10<sub>i</sub>); wherein the control device (100), if it finds that the actual phase relationship between two power supply units deviates from an optimal phase relationship, is designed to generate synchronising control signals for at least one power supply unit (10<sub>2</sub>), effectively changing the timing of at least one mode switch moment, such that the deviation between the actual phase relationship and said optimal phase relationship is reduced.

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